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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/635,822

08/07/2003

Katayoon Dehesh

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07/13/2006

ARNOLD & PORTER LLP  
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WASHINGTON, DC 20004-1206

EXAMINER

MCELWAIN, ELIZABETH F

ART UNIT

PAPER NUMBER

1638

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	10/635,822	DEHESH, KATAYOON	
	<b>Examiner</b>	<b>Art Unit</b>	
	Elizabeth F. McElwain	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 39-43, 45-49 and 92-112 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 39-43, 45-49 and 92-112 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 39-42, drawn to a DNA construct comprising a coding sequence for a Cuphea KAS factor A protein of SEQ ID NO: 5, and one or more coding sequences for a plant medium chain thioesterase, classified in class 536, subclass 23.6.
  - II. Claims 39-41, drawn to a DNA construct comprising a coding sequence for a Cuphea KAS factor A protein of SEQ ID NO: 7, and one or more coding sequences for a plant medium chain thioesterase, classified in class 536, subclass 23.6.
  - III. Claims 39-41, drawn to a DNA construct comprising a coding sequence for a Cuphea KAS factor A protein of SEQ ID NO: 13, and one or more coding sequences for a plant medium chain thioesterase, classified in class 536, subclass 23.6.
  - IV. Claims 39-41, drawn to a DNA construct comprising a coding sequence for a Cuphea KAS factor A protein of SEQ ID NO: 15, and one or more coding sequences for a plant medium chain thioesterase, classified in class 536, subclass 23.6.

- V. Claim 43, drawn to a DNA construct comprising a coding sequence for a Cuphea KAS factor A protein and coding for Garcinia mangostana FatA1 thioesterase, classified in class 536, subclass 23.2.
- VI. Claims 45-53 and 112, drawn to a method for production of medium chain fatty acids in transgenic plant seeds, classified in class 800, subclass 281.
- VII. Claims 54-61, drawn to a method of altering medium-chain fatty acid composition enriched for C10 fatty acids, classified in class 800, subclass 281.
- VIII. Claims 54-60 and 62, drawn to a method of altering medium-chain fatty acid composition enriched for C12 fatty acids, classified in class 800, subclass 281.
- IX. Claims 54-60, 63 and 64, drawn to a method of altering medium-chain fatty acid composition enriched for C12 fatty acids and having a decrease in C14 fatty acids, classified in class 800, subclass 281.
- X. Claims 54-60 and 65, drawn to a method of increasing the ratio of C10 fatty acids to C8 fatty acids, classified in class 800, subclass 281.
- XI. Claims 54-60 and 66, drawn to a method of increasing the total content of C10 fatty acids and C8 fatty acids, classified in class 800, subclass 281.
- XII. Claims 67-77, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein of SEQ ID NO: 5 encoding SEQ ID NO: 6, classified in class 800, subclass 298, for example.
- XIII. Claims 67-72, 74 and 77, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein of SEQ ID NO: 7, classified in class 800, subclass 298, for example.

- XIV. Claims 67-72, 74 and 77, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein of SEQ ID NO: 13, classified in class 800, subclass 298, for example.
- XV. Claims 67-72, 74 and 77, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein of SEQ ID NO: 15, classified in class 800, subclass 298, for example.
- XVI. Claims 67, 77 and 78, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein enriched for C12 fatty acids, classified in class 800, subclass 298.
- XVII. Claims 67, 77 and 79, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein enriched for C12 fatty acids, classified in class 800, subclass 298.
- XVIII. Claims 67, 77, 80 and 81, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein enriched for C12 fatty acids and having a decrease in C14 fatty acids, classified in class 800, subclass 298.
- XIX. Claims 67, 77 and 82, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein having an increased ratio of C10 to C8 fatty acids, classified in class 800, subclass 298.
- XX. Claims 67, 77 and 83, drawn to a transformed plant comprising a coding sequence for a thioesterase and a coding sequence for a KAS factor A protein having an

increased total content of C10 and C8 fatty acids, classified in class 800, subclass 298.

- XXI. Claims 84-86, drawn to a transformed plant comprising a *C. hookeriana* FatB2, a coding sequence for a *C. pulcherrima* FatB1 and a coding sequence for a KAS factor A protein from *Cuphea* enriched for C10 fatty acids, classified in class 800, subclass 298.
- XXII. Claims 84-86, drawn to a transformed plant comprising a *C. hookeriana* FatB2, a coding sequence for a *C. pulcherrima* FatB1 and a coding sequence for a KAS factor A protein from *Cuphea* enriched for C10 fatty acids, classified in class 800, subclass 298.
- XXIII. Claims 84, 85 and 87, drawn to a transformed plant comprising a *C. hookeriana* FatB2, a coding sequence for a *C. pulcherrima* FatB1 and a coding sequence for a KAS factor A protein from *Cuphea* enriched for C12 fatty acids, classified in class 800, subclass 298.
- XXIV. Claims 84, 85, 88 and 89, drawn to a transformed plant comprising a *C. hookeriana* FatB2, a coding sequence for a *C. pulcherrima* FatB1 and a coding sequence for a KAS factor A protein from *Cuphea* enriched for C12 fatty acids and having a decrease in C14 fatty acids, classified in class 800, subclass 298.
- XXV. Claims 84, 85 and 90, drawn to a transformed plant comprising a *C. hookeriana* FatB2, a coding sequence for a *C. pulcherrima* FatB1 and a coding sequence for a KAS factor A protein from *Cuphea* having an increase in total C10 and C8 fatty acids, classified in class 800, subclass 298.

XXVI. Claims 92-95, drawn to an isolated polynucleotide of SEQ ID NO: 13 encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

XXVII. Claims 96 and 97, drawn to a recombinant nucleic acid comprising a promoter and SEQ ID NO: 13 in sense orientation, classified in class 536, subclass 23.1.

XXVIII. Claims 96 and 97, drawn to a recombinant nucleic acid comprising a promoter and SEQ ID NO: 13 in anti-sense orientation, classified in class 536, subclass 23.1.

XXIX. Claims 98 and 99, drawn to a recombinant nucleic acid comprising a promoter and SEQ ID NO: 13 in sense orientation and a delta-9 desaturase coding sequence, classified in class 536, subclass 23.1.

XXX. Claims 98 and 99, drawn to a recombinant nucleic acid comprising a promoter and SEQ ID NO: 13 in anti-sense orientation and a delta-9 desaturase coding sequence, classified in class 536, subclass 23.1.

XXXI. Claims 100, 101 and 104, drawn to a host cell transformed with SEQ ID NO: 13, classified in class 435, subclass 252.3.

XXXII. Claims 100-111, drawn to a transgenic soybean plant or plant cell transformed with SEQ ID NO: 13, classified in class 800, subclass 312.

XXXIII. Claims 100-111, drawn to a transgenic corn plant or plant cell transformed with SEQ ID NO: 13, classified in class 800, subclass 320.1.

The inventions are distinct, each from the other because of the following reasons:

Groups I-V and XXVI-XXX are drawn to different nucleic acid sequences and different combinations of nucleic acid sequences. Applicants are reminded that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq.

This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of single genus of invention, but constitutes an independent and patentably distinct invention.

2. Inventions XII-XXV, and XXXI-XXXIII are directed to related products. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the inventions are drawn to plants that are genetically and phenotypically distinct one from each of the others. The plants of each of the groups comprise different transgenes or combinations of transgenes and/or exhibit different combinations or ratios of fatty acids. Each of the plants of the different groups are capable of being separately made, independently used and the patentability of one does not render the others obvious or unpatentable.



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3. Inventions VI-XI and Inventions XII-XXV and XXXI-XXXIII are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the claimed plants can either be made by a different process, such as by mutation or by transformation with different nucleic acid sequences or combination of nucleic acid sequences.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and the requirement for different searches, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

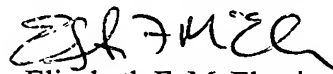
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (571) 272-0802. The examiner can normally be reached on increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth F. McElwain  
Ph.D. Level Examiner  
Art Unit 1638

EFM